

## Pt. 660, Subpt. C, Table 2a

## 50 CFR Ch. VI (10–1–11 Edition)

TABLE 2a TO PART 660, SUBPART C—2012, AND BEYOND, SPECIFICATIONS OF OFL, ABC, ACL, ACT AND FISHERY HARVEST GUIDELINES (WEIGHTS IN METRIC TONS)

Table 2a. To Part 660, Subpart C - 2012, and beyond,  
Specifications of OFL, ABC, ACL, ACT and Fishery Harvest  
guidelines (weights in metric tons).

Species	OFL	ABC	ACL a/	ACT	Fishery HG
<b>ROUND FISH:</b>					
Lingcod	2,251	2,151	2,151		1,880
	2,597	2,164	2,164		2,157
Pacific Cod d/	3,200	2,222	1,600		1,200
Pacific Whiting e/	e/	e/	e/		e/
Sablefish	8,623	8,242	5,347	See Table 2c	
			1,258		1,224
Cabezon	50	48	48		48
	176	168	168		168
<b>FLATFISH:</b>					
Dover sole j/	44,400	42,436	25,000		23,410
English sole k/	20,675	19,761	19,761		19,661
Petrable sole l/	1,021	976	976		910.6
Arrowtooth flounder m/	18,211	15,174	15,174		13,096
Starry Flounder n/	1,802	1,502	1,352		1,345
Other flatfish o/	10,146	7,044	4,884		4,686
<b>ROCKFISH:</b>					
Pacific Ocean Perch p/	1,007	962	180	157	144.2
Shortbelly q/	6,950	5,789	50		49
Widow r/	4,923	4,705	600		539.1
Canary s/	622	594	102		82
Chilipepper t/	1,872	1,789	1,789		1,774
Bocaccio u/	732	700	263		249.6
Splitnose v/	1,610	1,538	1,538		1,531
Yellowtail w/	4,573	4,371	4,371		3,872
Shortspine thornyhead x/	2,358	2,254	1,556		1,511
			401		359
Longspine thornyhead y/	3,483	2,902	2,064		2,020
			366		363
Cowcod z/	13	10	3		2.7
Darkblotched aa/	497	475	298		279.3
Yelloweye bb/	48	46	17		11.1
California Scorpionfish cc/	132	126	126		124
Black	435	415	415		401
	1,169	1,117	1,000		1,000
Minor Rockfish North ff/	3,821	3,414	2,227		2,116
Nearshore	116	99	99		99
Shelf	2,197	1,948	968		925
Slope	1,507	1,367	1,160		1,092
Minor Rockfish South gg/	4,291	3,712	2,341		2,290
Nearshore	1,145	990	990		990
Shelf	2,243	1,890	714		701
Slope	903	832	626		599
<b>SHARKS/SKATES/RATFISH/MORIDS/GRENADIERS/KELP GREENLING:</b>					
Longnose Skate hh/	3,006	2,873	1,349		1,220
Other fish ii/	11,150	7,742	5,575		5,575

a/ACLs and HGs are specified as total catch values. Fishery harvest guideline (HG) means the harvest guideline or quota after subtracting from the ACL of ACT any allocation for the Pacific Coast treaty Indian

Tribes, projected research catch, deductions for fishing mortality in non-groundfish fisheries, as necessary, and set-asides for EFPs.

b/Lingcod north (Oregon and Washington). A new lingcod stock assessment was prepared in 2009. The lingcod north biomass was estimated to be at 62 percent of its unfished biomass in 2009. The OFL of 2,251 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,151 mt was based on a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. ACL is further reduced for the Tribal fishery (250 mt), incidental open access fishery (16 mt) and research catch (5 mt), resulting in a fishery HG of 1,880 mt.

c/Lingcod south (California). A new lingcod stock assessment was prepared in 2009. The lingcod south biomass was estimated to be at 74 percent of its unfished biomass in 2009. The OFL of 2,597 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,164 mt was based on a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. An incidental open access set-aside of 7 mt is deducted from the ACL, resulting in a fishery HG of 2,157 mt.

d/Pacific Cod. The 3,200 mt OFL is based on the maximum level of historic landings. The ABC of 2,222 mt is a 31 percent reduction from the OFL ( $\sigma=1.44/P^*=0.40$ ) as it's a category 3 species. The 1,600 mt ACL is the OFL reduced by 50 percent as a precautionary adjustment. A set-aside of 400 mt is deducted from the ACL for the Tribal fishery, resulting in a fishery HG of 1,200 mt.

e/Pacific whiting. A range of ACLs were considered in the EIS (96,968 mt-290,903 mt). A new stock assessment will be prepared prior to the Council's March 2012 meeting. Final adoption of the Pacific whiting specifications have been deferred until the Council's March 2012 meeting.

f/Sablefish north. A coastwide sablefish stock assessment was prepared in 2007. The coastwide sablefish biomass was estimated to be at 38.3 percent of its unfished biomass in 2007. The coastwide OFL of 8,623 mt was based on the 2007 stock assessment with a  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 8,242 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The 40-10 harvest policy was applied to the ABC to derive the coastwide ACL and then the ACL was apportioned north and south of 36° N. lat, using the average of annual swept area biomass (2003-2008) from the NMFS NWFSC trawl survey, between the northern and southern areas with 68 percent going to the area north of 36° N. lat. and 32 percent going to the area south of 36° N. lat. The northern portion of the ACL is 5,347 mt and is reduced by 535 mt for the Tribal allocation (10 percent of the ACL north of 36° N. lat.) The 535 mt Tribal allocation is reduced by 1.5 percent to account for discard mortality. De-

tailed sablefish allocations are shown in Table 1c.

g/Sablefish South. That portion of the coastwide ACL (32 percent) apportioned to the area south of 36° N. lat. is 2,516 mt. An additional 50 percent reduction for uncertainty was made, resulting in an ACL of 1,258 mt. A set-aside of 34 mt is deducted from the ACL for EFP catch (26 mt), the incidental open access fishery (6 mt) and research catch (2 mt), resulting in a fishery HG of 1,224 mt.

h/Cabezon (Oregon). A new cabezon stock assessment was prepared in 2009. The cabezon biomass in Oregon was estimated to be at 51 percent of its unfished biomass in 2009. The OFL of 50 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 48 mt was based on a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. No set-asides were removed so the fishery HG is also equal to the ACL at 48 mt. Cabezon in waters off Oregon were removed from the "other fish" complex, while cabezon of Washington will continue to be managed within the "other fish" complex.

i/Cabezon (California)—A new cabezon stock assessment was prepared in 2009. The cabezon south biomass was estimated to be at 48 percent of its unfished biomass in 2009. The OFL of 176 mt was calculated using an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 168 mt was based on a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$  coastwide, the ACL is set equal to the ABC. No set-asides were removed so the fishery HG is also equal to the ACL at 168 mt.

j/Dover sole. Final 2012 OFLs, ABCs, ACLs, ACTs and fishery HGs for assessed flatfish species are contingent upon potential changes to the flatfish status determination criteria and harvest control rule.

k/English sole. Final 2012 OFLs, ABCs, ACLs, ACTs and fishery HGs for assessed flatfish species are contingent upon potential changes to the flatfish status determination criteria and harvest control rule.

l/Petrale sole. Final 2012 petrale sole OFL, ABC, ACL, ACT and fishery HG are contingent upon potential changes to the flatfish status determination criteria and harvest control rule, and potential changes to rebuilding plans.

n/Starry Flounder. Final 2012 OFLs, ABCs, ACLs, ACTs and fishery HGs, for assessed flatfish species are contingent upon potential changes to the flatfish status determination criteria and harvest control rule.

o/"Other flatfish" are the unassessed flatfish species that do not have individual OFLs/ABC/ACLs and include butter sole, curlfin sole, flathead sole, Pacific sand dab, rex sole, rock sole, and sand sole. The other flatfish OFL of 10,146 mt is based on the summed contribution of the OFLs determined for the component stocks. The ABC of

7,044 mt is a 31 percent reduction from the OFL ( $\sigma=1.44/P^*=0.40$ ) as all species in this complex are category 3 species. The ACL of 4,884 mt is equivalent to the 2010 OY, because there have been no significant changes in the status or management of stocks within the complex. A set-aside of 198 mt is deducted from the ACL for the Tribal fishery (60 mt), the incidental open access fishery (125 mt), and research catch (13 mt), resulting in a fishery HG of 4,686 mt.

p/ POP. Final 2012 ACLs, ACTs and fishery HGs for overfished species are contingent upon potential changes to rebuilding plans.

q/ Shortbelly rockfish. A non quantitative assessment was conducted in 2007. The spawning stock biomass of shortbelly rockfish was estimated at 67 percent of its unfished biomass in 2005. The OFL of 6,950 mt was recommended for the stock in 2011 with an ABC of 5,789 mt ( $\sigma=0.72$  with a  $P^*$  of 0.40). The 50 mt ACL is slightly higher than recent landings, but much lower than previous OYs in recognition of the stock's importance as a forage species in the California Current ecosystem. A set-aside of 1 mt for research catch, resulting in a fishery HG of 49 mt.

r/ Widow rockfish. Final 2012 ACLs, ACTs and fishery HGs for overfished species are contingent upon potential changes to rebuilding plans.

s/ Canary rockfish. Final 2012 ACLs, ACTs and fishery HGs for overfished species are contingent upon potential changes to rebuilding plans.

t/ Chilipepper rockfish. The coastwide chilipepper stock was assessed in 2007 and estimated to be at 71 percent of its unfished biomass coastwide in 2006. Given that chilipepper rockfish are predominantly a southern species, the stock is managed with stock-specific harvest specifications south of 40°10' N. lat. and within minor shelf rockfish north of 40°10' N. lat. South of 40°10' N. lat., the OFL of 1,872 mt is based on the 2007 assessment with an  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 1,789 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the biomass is estimated to be above 40 percent the unfished biomass, the ACL was set equal to the ABC. The ACL is reduced by the incidental open access fishery (5 mt), and research catch (9 mt), resulting in a fishery HG of 1,774 mt.

u/ Bocaccio. Final 2012 ACLs, ACTs and fishery HGs for overfished species are contingent upon potential changes to rebuilding plans.

v/ Splitnose rockfish. A new coastwide assessment was prepared in 2009 that estimated the stock to be at 66 percent of its unfished biomass in 2009. Splitnose in the north is managed under the minor slope rockfish complex and in the south (south of 40°10' N. lat.), with species-specific harvest specifications. The 1,610 mt OFL south of 40°10' N. lat. is based on the 2009 assessment with an  $F_{MSY}$

proxy of  $F_{50\%}$ . The ABC of 1,538 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the unfished biomass is estimated to be above 40 percent of the unfished biomass, the ACL is set equal to the ABC. A set-aside of 7 mt is deducted from the ACL for research catch, resulting in a fishery HG of 1,531 mt.

w/ Yellowtail rockfish. A yellowtail rockfish stock assessment was last prepared in 2005 for the Vancouver, Columbia, Eureka areas. Yellowtail rockfish was estimated to be at 55 percent of its unfished biomass in 2005. The OFL of 4,573 mt is based on the 2005 stock assessment with the  $F_{MSY}$  proxy of  $F_{50\%}$ . The ABC of 4,371 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set equal to the ABC, because the stock is above  $B_{40\%}$ . A set-aside of 499 mt is deducted from the ACL for the Tribal fishery (490 mt), the incidental open access fishery (3 mt), EFP catch (2 mt) and research catch (4 mt), resulting in a fishery HG of 3,872 mt.

x/ Shortspine thornyhead. A coastwide stock assessment was conducted in 2005 and the stock was estimated to be at 63 percent of its unfished biomass in 2005. A coastwide OFL of 2,358 mt is based on the 2005 stock assessment with a  $F_{50\%}$   $F_{MSY}$  proxy. The coastwide ABC of 2,254 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. For the portion of the stock that is north of 34°27' N. lat., the ACL is 1,556 mt, 66 percent of the coastwide OFL. A set-aside of 45 mt is deducted from the ACL for the Tribal fishery (38 mt), the incidental open access fishery (2 mt), and research catch (5 mt), resulting in a fishery HG of 1,511 mt for the area north of 34°27' N. lat. For that portion of the stock south of north of 34°27' N. lat. the ACL is 401 mt which is 34 percent of the coastwide OFL for the portion of the biomass found south of 34°27' N. lat. reduced by 50 percent as a precautionary adjustment. A set-aside of 42 mt is deducted from the ACL for the incidental open access fishery (41 mt), and research catch (1 mt), resulting in a fishery HG of 359 mt for the area south of 34°27' N. lat. The sum of the northern and southern area ACLs (1,957 mt) is a 13 percent reduction from the coastwide ABC.

y/ Longspine thornyhead. A coastwide stock assessment was conducted in 2005 and the stock was estimated to be at 71 percent of its unfished biomass in 2005. A coastwide OFL of 3,483 mt is based on the 2005 stock assessment with a  $F_{50\%}$   $F_{MSY}$  proxy. The ABC of 2,902 mt is a 17 percent reduction from the OFL ( $\sigma=0.72/P^*=0.40$ ) as it's a category 2 species. For the portion of the stock that is north of 34°27' N. lat., the ACL is 2,064 mt, and is 79 percent of the coastwide OFL for the biomass in that area. A set-aside of 44 mt

## Fishery Conservation and Management

## Pt. 660, Subpt. C, Table 2a

is deducted from the ACL for the Tribal fishery (30 mt), the incidental open access fishery (1 mt), and research catch (13 mt), resulting in a fishery HG of 2,020 mt. For that portion of the stock south of 34°27' N. lat. the ACL is 366 mt and is 21 percent of the coastwide OFL reduced by 50 percent as a precautionary adjustment. A set-aside of 3 mt is deducted from the ACL for the incidental open access fishery (2 mt), and research catch (1 mt), resulting in a fishery HG of 363 mt. The sum of the northern and southern area ACLs (2,430 mt) is a 16 percent reduction from the coastwide ABC.

z/ Cowcod. Final 2012 ACLs, ACTs and fishery HGs for overfished species are contingent upon potential changes to rebuilding plans.

aa/ Darkblotched rockfish. Final 2012 ACLs, ACTs and fishery HGs for overfished species are contingent upon potential changes to rebuilding plans.

bb/ Yelloweye rockfish. Final 2012 ACLs, ACTs and fishery HGs for overfished species are contingent upon potential changes to rebuilding plans.

cc/ California Scorpionfish south was assessed in 2005 and was estimated to be at 80 percent of its unfished biomass in 2005. The OFL of 132 mt is based on the new assessment with a harvest rate proxy of  $F_{50\%}$ . The ABC of 126 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. Because the stock is above  $B_{40\%}$ , the ACL is set equal to the ABC. A set-aside of 2 mt is deducted from the ACL for the incidental open access fishery, resulting in a fishery HG of 124 mt.

dd/ Black rockfish north (Washington). A stock assessment was prepared in 2007 for black rockfish north of 45°56' N. lat. (Cape Falcon, Oregon). The biomass in this area was estimated to be at 53 percent of its unfished biomass in 2007. The OFL from the assessed area is based on the 2007 assessment with a harvest rate proxy of  $F_{50\%}$ . The resulting OFL for the area north of 46°16' N. lat. (the Washington/Oregon border) is 435 mt, which is 97 percent of the OFL from the assessed area. The ABC of 415 mt for the area north of 46°16' N. lat. is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set equal to the ABC, since the stock is above  $B_{40\%}$ . A set-aside of 14 mt for the Tribal fishery results in a fishery HG of 401 mt.

ee/ Black rockfish south (Oregon and California). A 2007 stock assessment was prepared for black rockfish south of 45°56' N. lat. (Cape Falcon, Oregon) to the southern limit of the stock's distribution in Central California. The biomass in the south was estimated to be at 70 percent of its unfished biomass in 2007. The OFL from the assessed area is based on the 2007 assessment with a harvest rate proxy of  $F_{50\%}$ . Three percent of the OFL from the stock assessment prepared for black rockfish north of 45°56' N. lat. is added

to the OFL from the assessed area south of 45°56'. The resulting OFL for the area south of 46°16' N. lat. is 1,169 mt. The ABC of 1,117 mt for the south is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL was set at 1,000 mt, which is a constant catch strategy designed to keep the stock biomass above  $B_{40\%}$ . The black rockfish ACL in the area south of 46°16' N. lat., is subdivided with separate HGs being set for the area north of 42° N. lat. (580 mt/58 percent) and for the area south of 42° N. lat. (420 mt/42 percent).

ff/ Minor rockfish north is comprised of three minor rockfish sub-complexes: Nearshore, shelf, and slope. The OFL of 3,767 mt is the sum of OFLs for nearshore (116 mt), shelf (2,197 mt) and slope (1,507 mt) north sub-complexes. Each sub-complex OFL is the sum of the OFLs of the component species within the complex. The ABCs for the minor rockfish complexes and sub-complexes are based on a sigma value of 0.36 for category 1 stocks (splitnose and chilipepper rockfish), 0.72 for category 2 stocks (greenstriped rockfish and blue rockfish in California) and 1.44 for category 3 stocks (all others) with a  $P^*$  of 0.45. The resulting minor rockfish north ABC, which is the summed contribution of the ABCs for the contributing species in each sub-complex (nearshore, shelf, and slope) is 3,414 mt. The ACL of 2,227 mt for the complex is the sum of the sub-complex ACLs. The sub-complex ACLs are the sum of the component stock ACLs, which are less than or equal to the ABC contribution of each component stock. There are no set-asides for the nearshore sub-complex, thus the fishery HG is equal to the ACL, which is 99 mt. The set-aside for the shelf sub-complex is 43 mt—Tribal fishery (9 mt), the incidental open access fishery (26 mt), EFP catch (4 mt) and research catch (4 mt), resulting in a shelf fishery HG of 925 mt. The set-aside for the slope sub-complex is 68 mt—Tribal fishery (36 mt), the incidental open access fishery (19 mt), EFP catch (2) and research catch (11 mt), resulting in a slope fishery HG of 1,092 mt.

gg/ Minor rockfish south is comprised of three minor rockfish sub-complexes: Nearshore, shelf, and slope. The OFL of 4,291 mt is the sum of OFLs for nearshore (1,145 mt), shelf (2,243 mt) and slope (903 mt) south sub-complexes. Each sub-complex OFL is the sum of the OFLs of the component species within the complex. The ABCs for the minor rockfish complexes and sub-complexes are based on a sigma value of 0.36 for category 1 stocks (gopher rockfish north of Point Conception, blackgill), 0.72 for category 2 stocks (blue rockfish in the assessed area, greenstriped rockfish, and bank rockfish) and 1.44 for category 3 stocks (all others) with a  $P^*$  of 0.45. The resulting minor rockfish south ABC, which is the summed contribution of the ABCs for the contributing species in each sub-complex, is 3,712 mt. The

**Pt. 660, Subpt. C, Table 2a**

**50 CFR Ch. VI (10–1–11 Edition)**

ACL of 2,341 mt for the complex is the sum of the sub-complex ACLs. The sub-complex ACLs are the sum of the component stock ACLs, which are less than or equal to the ABC contribution of each component stock. There are no set-asides for the nearshore sub-complex, thus the fishery HG is equal to the ACL, which is 990 mt. The set-asides for the shelf sub-complex is 13 mt for the incidental open access fishery (9 mt), EFP catch (2 mt) and research catch (2 mt), resulting in a shelf fishery HG of 701 mt. The set-asides for the slope sub-complex is 27 mt for the incidental open access fishery (17 mt), EFP catch (2 mt) and research catch (8 mt), resulting in a slope fishery HG of 599 mt.

hh/ Longnose skate. A stock assessment update was prepared in 2007 and the stock was estimated to be at 66 percent of its unfished biomass. The OFL of 3,128 mt is based on the 2007 stock assessment with an  $F_{MSY}$  proxy of  $F_{45\%}$ . The ABC of 2,990 mt is a 4 percent reduction from the OFL ( $\sigma=0.36/P^*=0.45$ ) as it's a category 1 species. The ACL of 1,349 is the 2010 OY and represents a 50 percent increase in the average 2004–2006 catch

mortality (landings and discard mortality). The set-asides for longnose skate is 129 mt for the Tribal fishery (56 mt), incidental open access fishery (65 mt), and research catch (8 mt), resulting in a fishery HG of 1,220 mt.

ii/ "Other fish" contains all unassessed groundfish FMP species that are neither rockfish (family Scorpaenidae) nor flatfish. These species include big skate, California skate, leopard shark, soupfin shark, spiny dogfish, finescale codling, Pacific rattail, ratfish, cabezon off Washington, and kelp greenling. The OFL of 11,150 mt is the 2010 MSY harvest level minus the 50 mt contribution made for cabezon off Oregon, which is a newly assessed stock to be managed with stock-specific specifications. The ABC of 7,742 mt is a 31 percent reduction from the OFL ( $\sigma=1.44/P^*=0.40$ ) as all of the stocks in the "other fish" complex are category 3 species. The ACL of 5,575 mt is equal to the 2010 OY, minus half of the OFL contribution for Cabezon off of Oregon (25 mt). The fishery HG is equal to the ACL.

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